

a detecting circuit that detects a source voltage;

a control circuit that stops, if the detected source voltage is lower than <sup>a</sup>~~the~~ predetermined voltage, the supply of the drive current to the light-emitting element;

a photodiode that converts part of an optical output signal of the light-emitting element into an electrical signal;

an automatic power control circuit that outputs, in response to the electrical signal from the photodiode, a control signal for making an optical power of the optical output signal constant;

a switch circuit that transmits the control signal outputted from the automatic power control circuit to the current source if the detected source voltage is over the predetermined voltage; and

wherein the automatic power control circuit has a buffer circuit that performs level conversion of <sup>a</sup>~~the~~ light-on/off signal, a first peak hold circuit that holds a maximum output level of the buffer circuit, a second peak hold circuit that holds a maximum output level of the photodiode, and a comparator that makes a comparison between output levels of the first peak hold circuit and the second peak hold circuit.

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